

### REMARKS

Claims 1-9, 12 and 16-20 are pending in this Application. Claims 10-11 and 13-15 have been previously canceled without prejudice. Claims 21-24 have been newly added with this reply. In the Office Action mailed January 24, 2007, the Examiner:

- objected to the specification as non-enabling;
- rejected Claims 1-9 and 16-20 under 35 U.S.C. § 112, first paragraph;
- rejected Claims 1-9 and 16-20 under 35 U.S.C. § 112, first paragraph and 35 U.S.C. § 132;
- rejected Claims 1-9 and 16-20 under 35 U.S.C. § 112, second paragraph;
- rejected Claims 1-9 and 16-20 for obviousness-type double patenting as being unpatentable over Claims 1-21 of U.S. Patent No. 6,749,897; and
- rejected Claims 1-9, 12 and 16-19 under 35 U.S.C. § 103(a) as being unpatentable over JP 60192074 (abstract, Matsushita Electric Works Ltd; herein "Matsushita"), Liskowitz et al. (WO 97/21640; herein "Liskowitz"), U.S. Patent No. 5,439,518 (herein "Francis"), U.S. Patent No. 4,441,944 (herein "Massey").

Applicants again thank the Examiner for holding a telephone interview with Applicants' representative on July 12, 2007, and for discussing the Office Action mailed January 24, 2007. From the Interview, the Examiner agreed that claims, were they to be amended to language considered allowable in co-pending U.S. Application No. 10/090,299, would be reconsidered and accepted to overcome rejection with respect to various sizes of fly ash. Applicants thank the Examiner for this and, as requested, point to page 2 of the Office Action dated May 17, 2007, for U.S. Application No. 10/090,299 as a reference. Applicants submit that with this reply independent and amended Claims 1, 18, 19 and 20 are enabling with respect to the sizes of fly ash and overcome the objection to the specification as non-enabling, the rejection under 35 U.S.C. § 112, first paragraph, and the new matter rejection under 35 U.S.C. § 112, first paragraph, and 35 U.S.C. § 132.

With the Amendments, the claimed invention discloses components of fly ash particles consistent with the specification that includes: a first, larger component (e.g., 100 micron maximum size or greater than 100 microns) and a second, smaller size component (i.e., about 10 micron maximum size). Such sizes are reasonably enabled by the specification as previously pointed out and as submitted herewith. For example, para. [0032] of the originally filed specification discloses, "in a preferred embodiment, the fly ash comprises two components. A first, 'larger' size particles of fly ash with preferably about a 100 micron maximum size." Para. [0033] discloses, "the second 'smaller' fly ash size zone which preferably has about a 10 micron maximum size." Para. [0036] discloses, "the dewatering agent may include a coarse fraction fly ash which is greater than about 100 microns." Further on, Examples 1-4 provide representative coating formulations that use in a slurry a 'larger' size fraction and a 'smaller' size fraction. Thus, the size language as amended falls within the ranges as originally disclosed (e.g., paragraphs [0032] to [0036] of the as-filed specification). Accordingly, the specification provides adequate and reasonable support for one of ordinary skill to practice the invention and the subject matter of the specification is reasonably described in a way as to enable one of ordinary skill to make and/or use the claimed invention. Furthermore, the size language provides clear ranges for the two components of particles that are not overlapping.

Applicants further submit that the amended claims set forth herein are supported by the as-filed specification. Terms such as "about" and "at least" may be included or removed as long as they are within the scope of the original specification and their meaning understood by one of ordinary skill in the art. As such, the term "greater than 100 microns" falls within the scope of "greater than about 100 microns" as used in para. [0036] of the specification. The term "at least about 120 seconds or less" falls within the scope of para. [0058], [0059], [0060] and [0061] in which various representative examples were shown to dewater in 90 seconds, 60 seconds, 120 seconds and 90 seconds, respectively. The term "cures in at least about 48 hours" falls within the scope of "a curing time range between about 6 and 72 hours, preferably up to about 48 hours, is suitable" disclosed in para. [0056] of the as-filed specification. Thus, Applicants submit that the scope of the subject matter embraced by the claims is clear and commensurate with the scope of

enablement provided to one skilled in the art by the disclosure. As such, the claims set forth that which applicants regards as part of their invention and are reasonably supported by the original description.

***Claims rejections – Obviousness-type double patenting***

On page 7 of the Office Action Claims 1-9, 12 and 16-19 were rejected on the grounds of obviousness-type double patenting as being unpatentable over U.S. Patent No. 6,749,897.

Applicants respectfully traverse the rejection and request that it be held in abeyance until there is allowable subject matter at which time the merits of the rejection may be properly addressed in view of the allowable claims.

***Claims rejections – 35 U.S.C. § 103(a)***

On page 7 of the Office Action Claims 1-9, 12 and 16-19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Matsushita, Liskowitz, Francis or Massey. Applicants submit that none of the cited references disclose each and every element of the claimed or the claimed subject matter on its whole, which includes a coating formulation for coating building products with a dewatering aid and water added to a hydraulic binder, the dewatering aid comprising two components including a first larger size component of fly ash (100 micron maximum size or greater than 100 microns) and a second, smaller size component of fly ash (about 10 micron maximum size). For example, Matsushita teaches cement. The cement of Matsushita has cement particles of 20 microns (mean) and “two or more reactive filler.” The reactive fillers are to provide “improved mechanical properties” to the cement due to their size distribution. However, Matsushita does not actually teach a reasonable or suitable formulation for the cement. For example, Matsushita does not teach any suitable or working range for the reactive filler(s) when added to the cement. The reactive fillers are only said to be in a ratio with themselves of 5:1 (former:latter) to 2:1 (former:latter). In addition, the cement formulation, itself, is not reasonably disclosed by Matsushita; it is merely said to be any cement, “Portland cement or slag cement, etc.” Matsushita does not even indicate in any clear or concise terms what “two or more reactive fillers” are.

Matsushita merely provides a laundry list of potential reactive fillers as “fly ash, white clay, diatomaceous earth, etc.” or “silicon dust, pulverised fly ash, pulverised silica stone, etc.” This lack of teaching is, in and of itself not enough for one of ordinary skill to make a suitable cement with “improved mechanical properties” without undue experimentation. Moreover, Matsushita does not disclose or suggest anything about whether their cement of an unknown formulation may be added to a building product surface or board surface or that their cement may be dewatered through the building product or board. The Examiner is reading more into the Abstract than is allowed and each and every element of Applicants’ claims must be taught by Matsushita for a showing of obviousness. In addition, one of ordinary skill would not read an abstract of Matsushita for an unknown cement formulation at the time it was published and naturally arrive at Applicants’ claimed invention. There is certainly no suggestion in the reference, Matsushita, itself, to modify the unknown cement formulation and there is no known motivation for one of ordinary skill to modify the unknown formulation of Matsushita into anything at all. The nonenabling subject matter of Matsushita is unpredictable with regard to any actual cement formulation. For a showing of obviousness, at least some degree of predictability is required (see MPEP 2413). Matsushita is also unpredictable with respect to Applicants’ invention by providing no known solutions to the problem of Applicants’ claimed invention, one of which is preparing a suitable coating for a building product with a surface finish. As such, there can be no reasonable expectation any modification of Matsushita may be successful. Applicants submit that Matsushita is not obvious over Claims 1-9, 12 and 16-19 and respectfully request the rejection under 35 U.S.C. § 103(a) be removed.

With regard to Liskowitz, this reference teaches concrete and mortar compositions. The compositions of Liskowitz have fly ash particles with a median particles diameter of less than 4.0 microns (93% or greater are less than 11 microns in diameter, 70% or greater are less than 5.5 microns). As such, Liskowitz does not teach each and every element of Applicants’ claimed invention which is required for a showing of obviousness. Liskowitz specifically teaches very extensively of the benefits of using their very small fly ash with a median particles diameter of less than 4.0 microns (alone or combined with silica fume particles of 1 micron or less) to achieve increased compressive strength of the cement (concrete or mortar). Liskowitz does not disclose or

suggest anything about whether their cement may be added to a building product or board and dewatered through the building product or board because Liskowitz specifically teaches their cement is high strength concrete or mortar to replace commercial concrete or mortar formulations. Liskowitz does not teach that their cement may be dewatered through a building product or board. One of ordinary skill would not read into Liskowitz's concrete or mortar formulation and naturally arrive at Applicants' claimed invention. There is certainly no suggestion in the reference, Liskowitz, itself, to modify their invention and there is no known motivation for one of ordinary skill to modify the specific concrete and mortar formulations of Liskowitz into anything other than what is specifically taught. A proposed modification of Liskowitz as suggested by the Examiner has no reasonable expectation of success if Liskowitz, itself does not suggest such a modification. As such, there is no reasonable expectation of success and none that has been provided at the time the invention was made. Applicants submit that Liskowitz is not obvious over Claims 1-9, 12 and 16-19 and respectfully request the rejection under 35 U.S.C. § 103(a) be removed.

With regard to Francis, this reference teaches a lime-containing flyash binder compositions of high strength that are better than Portland cement-based compositions. The compositions of Francis have one component of particles that is Class C flyash and gypsum are made specifically into floor underlayment in which "it is expected that approximately equal parts of Class C flyash and gypsum hemihydrate would be preferred" (Col 4, ll. 58-68) or road patches in which "a larger amount of flyash is desirable" due to its high compressive strength after "aging" (Col. 4, ll. Col. 5, ll. 12-16). As specifically taught, compositions of Francis must age, "Flyash, on the other hand, obtains a minimum green strength within about 20 minutes, and thereafter ages to obtain its full compressive strength some days later" (Col. 3, ll. 59-61). Class C flyash as used by Francis is set that of ASTM C-618, which as known to one of ordinary skill has an average size range greater than 10 microns. As such, Francis does not teach each and every element of Applicants' claimed invention which is required for a showing of obviousness. Francis specifically teaches very extensively of the benefits of using Class C fly ash (with or without gypsum) to achieve increased compressive strength of the composition. Francis does not disclose or suggest anything about adding their composition to a building product or board and dewatering through the building

product or board because Francis specifically teaches their composition is a high strength floor underlayment, road patch or statuary. One of ordinary skill would not read into Francis's composition and naturally arrive at Applicants' claimed invention. There is certainly no suggestion in the reference, Francis, itself, to modify their invention and there is no known motivation for one of ordinary skill to modify the specific underlayment or road patch compositions of Francis into anything other than what is specifically taught. A proposed modification of Francis as suggested by the Examiner has no reasonable expectation of success if Francis, itself does not suggest such a modification. As such, there is no reasonable expectation of success and none that has been provided at the time the invention was made. Applicants submit that Francis is not obvious over Claims 1-9, 12 and 16-19 and respectfully request the rejection under 35 U.S.C. § 103(a) be removed.

With regard to Massey, this reference teaches foamed compositions of an acrylic latex emulsion premix in which a second premix of dry cement and flyash (with or without hollow cenospheres from 10-200 microns) and/or solid foamed polymeric additives (foamed styrene beads) are blended together and to which may be further added to a third foam pre-mix. high strength that are better than Portland cement-based compositions. The size of the flyash is not stated. As such, Massey does not teach each and every element of Applicants' claimed invention which is required for a showing of obviousness. One of ordinary skill would not read into Massey's foamed composition with acrylic latex and naturally arrive at Applicants' claimed invention. There is certainly no suggestion in the reference, Massey, itself, to modify their invention and there is no known motivation for one of ordinary skill to modify Massey's foamed composition with acrylic latex into anything other than what is specifically taught. A proposed modification of Massey as suggested by the Examiner has no reasonable expectation of success if Massey, itself does not suggest such a modification. As such, there is no reasonable expectation of success and none that has been provided at the time the invention was made. Applicants submit that Massey is not obvious over Claims 1-9, 12 and 16-19 and respectfully request the rejection under 35 U.S.C. § 103(a) be removed.

Attorney No. BALDS2.024AUS (131279-1019)  
Customer No. 60148

AMENDMENT AND RESPONSE  
Application No. 10/090,561

13

With this reply, Applicants submit new Claims 21-24 believed to define Applicants' invention without introducing new subject matter requiring an additional search. Entry and allowance of the new claims are respectfully requested.

### CONCLUSION

Applicants respectfully submit that the Application is in condition for allowance, and pursuant to the filing of this Amendment, Applicants earnestly seek such allowance of the claims as provided in the Listing of Claims beginning on page 3 of this paper. Should the Examiner have questions, comments, or suggestions in furtherance of the prosecution of this Application, please contact Applicants' representative at 214.999.4330. Applicants, through their representative, stand ready to conduct a telephone interview with the Examiner to review this Application if the Examiner believes that such an interview would assist in the advancement of this Application.

A Petition for Extension of Time for three-months are submitted concurrently with this Amendment. All fees associated with concurrent submissions are hereby authorized to be charged to Deposit Account 07-0153. Applicants further authorize the Commissioner to charge any additional fees, other than the issue fee, that may be required by this paper to Deposit Account 07-0153.

To the extent that any further fees are required during the pendency of this Application, including petition fees, the Commissioner is hereby authorized to charge payment of any additional fees, including, without limitation, any fees under 37 C.F.R. § 1.16 or 37 C.F.R. § 1.17, to Deposit Account No. 07-0153 of Gardere Wynne Sewell LLP and reference Attorney Docket No. 131279-1019. In the event that any additional time is needed for this filing, or any additional time in excess of that requested in a petition for an extension of time enclosed herewith, please consider this a petition for an extension of time for any needed extension of time pursuant to 37 C.F.R. § 1.136 or any other section or provision of Title 37. Applicants respectfully request that the Commissioner grant any such petition and authorize the Commissioner to charge the Deposit Account referenced above. Please credit any overpayments to this same Deposit Account.



This is intended to be a complete response to the Office Action made final and mailed January 24, 2007.

**Please direct all correspondence to the practitioner listed below at Customer No. 60148.**

Respectfully submitted,



Monique A. Vander Molen  
Registration No. 53,716

Gardere Wynne Sewell LLP  
1601 Elm Street, Suite 3000  
Dallas, Texas 75201-4761  
Telephone: 214.999.4344  
Facsimile: 214.999.3344  
Email: ip@gardere.com

Dated: July 24, 2007